

TS Series

Lightning & surge protection for PSTN, private wire and ISDN applications

- **Full 10 pair protection in a single, compact device**
- **20kA surge rating**
- **Simply plugs directly into standard disconnection or switching module strip**
- **Versions available for PSTN or private wire/ISDN applications**
- **10 year product warranty**



The TS Series of telecom surge protection devices combines proven reliable hybrid circuitry, simple installation and a high surge absorption capability - features which make the TS units an ideal surge protection solution. Like all Telematic surge protection devices, TS Series units increase system reliability, prevent damage to business critical equipment and protect against costly and disruptive system downtime.

In the past it has been the practice to rely only on a Gas Discharge Tube, connected between the A and B wires (differential mode), however the response of these devices is far too slow to protect today's exchange technology. Without the addition of high speed, high energy protection these exchanges are easily damaged by lightning and other sources of induced surges.

Hybrid surge protection circuitry utilised within TS Series devices provides full, 10 pair surge protection in a single compact unit.

This multi-stage protection approach provides lower limiting voltages (or let-through voltages) which ensures a safe working environment for sensitive digital equipment.

With a 20kA surge handling capability, surge currents are diverted quickly and safely to earth. The TS devices provide protection against surges between A and B wires (differential mode) and A/B wires to earth (common mode).

The TS Series offers application versatility. The TS10-I, with a maximum working voltage of 65V, is ideal for ISDN or private wire applications. The TS10-P however has been designed specifically for PSTN applications (Public Switched Telephone Networks) with a maximum operating voltage of 190V.

Installation and earthing is simple and flexible. TS units plug easily into standard disconnection

or switching module strips with automatic earth connection via two integrated fork connections. TS protection modules are virtually maintenance free as they are designed to fail safe.

TS Series devices are supplied with a full 10 year product warranty, like all Telematic surge protection devices, for added peace of mind. For complete system protection, mains power, data/signal line and network and comms surge protection devices are also available from the MTL Surge Technologies range.

Specification

All figures typical at 77°F (25°C) unless otherwise stated

Maximum surge current

20kA (8/20µs single pulse common mode)
10kA (8/20µs single pulse difference mode)

Maximum line current

TS10-P 150mA
TS10-I 150mA

Maximum working voltage

TS10-P 190V
TS10-I 65V

Loop resistance

TS10-P 9 ohms (+/-5%)
TS10-I 6.6 ohms (+/-5%)

Bandwidth

DC to 12MHz

Line (impedance) balance

<55dB

Return loss

<20dB

Insertion loss

<0.4dB @ 12MHz

Ambient temperature limits

-10°C to +60°C
+14°F to +140°F

Humidity

90% RH (non-condensing)

Terminals

PCB to plug into distribution frame
disconnection block

Casing

ABS plastic

Weight

65g (2.3oz)

Dimensions

See figure 1

EMC compliance

To Generic Immunity Standard BS EN 50082-2,
part 2 for industrial environments

R&TTE compliance

BS EN 50082-2 : 1995
BS EN 60950 : 1992*
*only applicable to the TS10-P

LVD compliance

BS EN 60950 : 1992*
*only applicable to the TS10-PA-Tick (pending)

Installation

Installation of TS Series devices is easy, simply plug the surge protection device into the block ensuring that the LINE SIDE faces the incoming line.

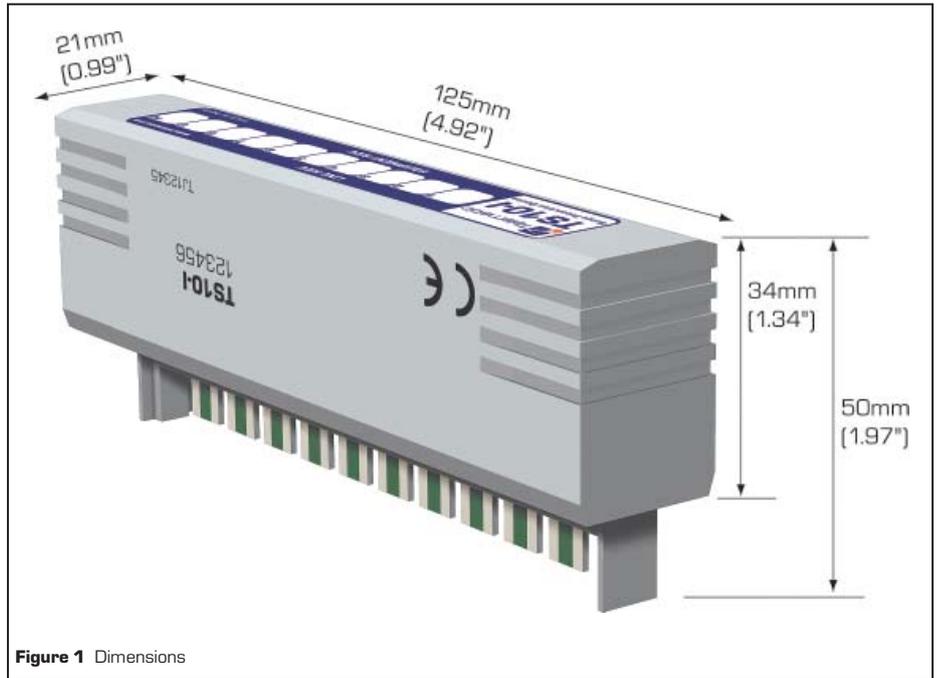


Figure 1 Dimensions

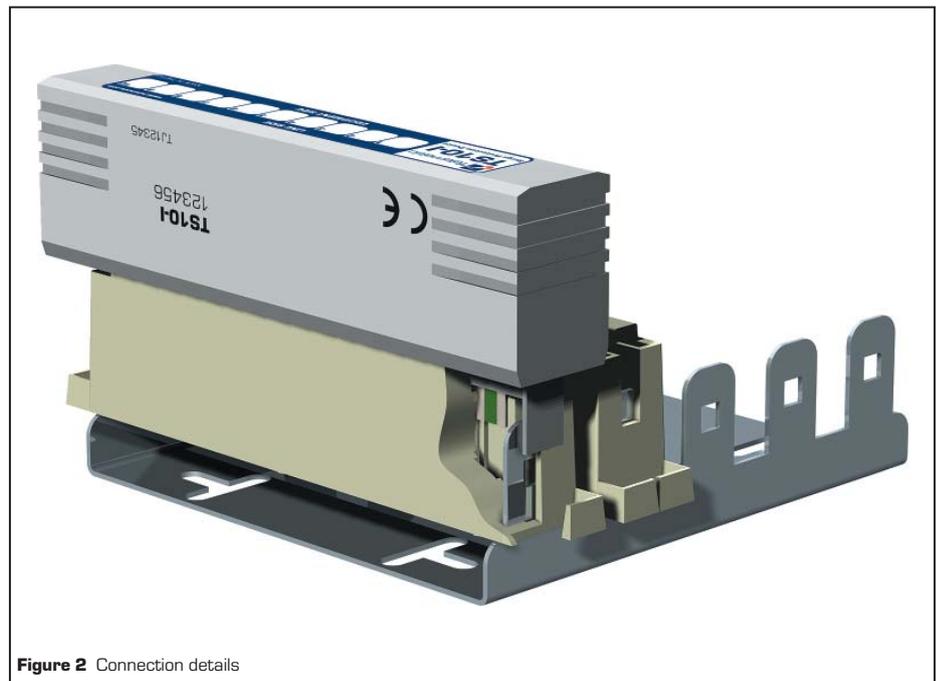


Figure 2 Connection details

Note: In accordance with our policy of continuous improvement, we reserve the right to change the product's specification without notice

To order specify -

TS10-P (10 pair protection for PSTN applications)
TS10-I (10 pair protection for ISDN or private wire applications)